

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1 to 86 (Cancelled)

87. (Currently Amended) A color coded ~~map~~ image for use in evaluating a selected place in a system in which a fluid flows, and which is characterized by a change in the system with time in space as a function of a system parameter related to system wash-in behavior and wash-out behavior at two preselected time intervals after a system event, said ~~map~~ image depicting in two or three dimensions an image of the system in a plurality of colors, and wherein the discrete elements of the image have been coded by a color function related to system behavior at the two preselected time points to have a color hue of one of said plurality of colors indicative of the system wash-out behavior.

88. (Currently Amended) A color coded ~~map~~ image as recited in claim 87 in which the system comprises human tissue.

89. (Currently Amended) A color coded ~~map~~ image as recited in claim 88 in which the system comprises human breast tissue.

90. (Currently Amended) A color coded ~~map~~ image as recited in claim 88 in which the system comprises two breasts.

91. (Currently Amended) A color coded ~~map~~ image as recited in claim 87 in which the system event is defined by injection of a tracer into the fluid.

92. (Currently Amended) A color coded ~~map~~ image for use in evaluating a selected place in a system in which a fluid flows, and which is characterized by a change in the system with time in space as a function of a system parameter related to system wash-in behavior and wash-out behavior at two preselected time intervals after a system event, said ~~map~~ image depicting in two or three dimensions an image of the system in a plurality of colors, and wherein the discrete elements of the image have been coded by an intensity function related to system behavior before the system event and the first of the two selected time points to have a color intensity indicative of the system wash-in behavior.

93. (Currently Amended) A color coded ~~map~~ image as recited in claim 92 in which the system comprises human tissue.

94. (Currently Amended) A color coded ~~map~~ image as recited in claim 92 in which the system comprises human breast tissue.

95. (Currently Amended) A color coded ~~map~~ image as recited in claim 92 in which the system comprises two breasts.

96. (Currently Amended) A color coded ~~map~~ image as recited in claim 92 in which the system event is defined by injection of a tracer into the fluid.

97. (Currently Amended) A color coded ~~map~~ image for use in evaluating a selected place in a system in which a fluid flows, and which is characterized by a change in the system with time in space as a function of a system parameter related to system wash-in behavior and wash-out behavior at two preselected time intervals after a system event, said ~~map~~ image depicting in two or three dimensions an image of the system in a plurality of colors, and wherein the discrete elements of the image have been coded by a color function related to system behavior at the two preselected time points to have a color hue of one of said plurality of colors indicative of the system wash-out behavior and have been coded by an intensity function related to system behavior at the system event and the first of the two selected time points to have a color intensity indicative of the system wash-in behavior.

98. (Currently Amended) A color coded ~~map~~ image as recited in claim 97 in which the system comprises human tissue.

99. (Currently Amended) A color coded ~~map~~ image as recited in claim 98 in which the system comprises human breast tissue.

100. (Currently Amended) A color coded map image as recited in claim 99 in which the system comprises two breasts.

101. (Currently Amended) A color coded ~~map~~ image as recited in claim 97 in which the system event is defined by injection of a tracer into the fluid.

102. (Currently Amended) A color coded ~~map~~ image for use in evaluating a lesion in the breast of a subject body in which blood flows and in which a contrast agent has been injected into the blood and which is characterized by a change in the concentration of the contrast agent in the breast with time in space as a function of the contrast agent wash-in and wash-out behavior at two time intervals after injection of the contrast agent, said ~~map~~ image depicting in two or three dimensions an image correlated with the said behavior, and wherein the discrete elements of the image have been color coded by a color function to have a color hue of one of a plurality of colors indicative of the contrast agent wash-out behavior and have been coded by an intensity function to have a color intensity indicative of the contrast agent wash-in behavior.

103. (Currently Amended) The color coded ~~map~~ image of claim 102 wherein said behaviors are determined by two variables, K and v, wherein K defines microvascular permeability and v defines the fraction of extracellular volume which estimates the amount of free space in the breast.

104 to 119 (Cancelled)

120. (Currently Amended) A method for generating a color-coded image of a tissue of a human patient, comprising:

selecting a plurality of time points which define at least a first time interval after a system event and a second time interval after the system event;

obtaining an magnetic resonance imaging ("MRI") image of a location in a tissue of a human patient at each of the plurality of time points;

processing the magnetic resonance imaging ("MRI") images, and based thereon, generating a color coded image of the location in the tissue, the color coded image having a plurality of discrete elements, the discrete elements of the image having a color hue indicative of wash-out behavior in the tissue during the second time interval and a color intensity indicative of wash-in behavior in the tissue during the first time interval.

121. (Previously Presented) The method of claim 120, wherein the step of generating the color coded image further comprises displaying said color coded image on a display screen.

122. (Previously Presented) The method of claim 120, wherein the tissue is female human breast tissue.

123. (Previously Presented) The method of claim 120, wherein the system event is an injection of a contrast agent into the human patient.

124. (Previously Presented) The method of claim 120, wherein the second time interval is after the first time interval.

125. (Previously Presented) The method of claim 120, wherein the time points include a first time point, a second time point subsequent to the first time point, and a third time point subsequent to the second time point, the first time interval being between the first and second time points and the second time interval being between the second and the third time points.

126. (Previously Presented) The method of claim 120, further comprising altering the time points to redefine the first and second time intervals, and repeating the obtaining and processing steps.